Abstract of the Disclosure

A mechanical-to-acoustical transducer has at least one actuator, preferably a piezo motor, that is coupled, generally perpendicularly, to one edge of a diaphragm formed from a thin, flexible sheet material. The diaphragm is fixed at a point spaced from the actuator in the direction of its motion so that excursion of the actuator is translated into a corresponding, mechanically-amplified, excursion of the diaphragm -- typically amplified five to seven times. The diaphragm is curved, preferably parabolically, and to a small degree. The diaphragm, if optically clear, can be mounted on a frame over a video display screen to provide a screen speaker. Preferably, such a screen speaker is pinned or adhered at upper and lower edges at or near its vertical centerline and is supported by and driven at both lateral edges by one or more single layer piezo actuators. The actuators are secured at one end to the frame or other stationary member, and at a free, movable end, to an edge of the diaphragm, generally at right angles. A gasket seals the edges of the diaphragm to maintain an acoustic pressure gradient across the diaphragm.